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TRANSLATIONS ON COMMUNIST CHINA'S  
SCIENCE AND TECHNOLOGY  
No. 12

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## FOREWORD

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TRANSLATIONS ON COMMUNIST CHINA'S

SCIENCE AND TECHNOLOGY

No. 12

This serial publication contains summaries or translations (as indicated) of selected articles on Communist China's science and technology, on the specific subjects reflected in the table of contents. Complete bibliographic information accompanies each article.

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GEOLOGICAL WORKERS IN THE CAPITAL CELEBRATE THE FOURTIETH  
ANNIVERSARY OF THE GEOLOGICAL SOCIETY OF CHINA

[Following is a translation of an article by Chang An-ti  
(1728 1344 2769) in Ti-chih Hsueh-pao (Acta Geologica Sinica)  
Vol. 42, No. 1, March 1962, Peiping, page 102.]

January 27, 1962 is the fourtieth anniversary of the founding of  
the Geological Society of China. More than 1,000 geological workers

gathered in the capital for the occasion. The meeting was  
sponsored by the Geological Society of China and the Peking Chapter. Old  
geologists, professors, and young geological workers were present. Also,  
representatives of the mining enterprises, Ministry of Geology, Chinese  
Academy of Science, and various affiliated units.

The Vice-President of the Peking Institute of Mining, 74-year old  
Professor Ho Chieh (0149 2638), made the opening remarks on behalf of  
the board of directors of the Geological Society of China. He reviewed  
the 40 years of work of the Society, emphasizing the great achievements  
since the Liberation. He said that the Society now has several thousand  
members in all parts of the country and has established branch societies  
or chapters in 20-odd provinces. The Society has prospered under the  
Party policy of "a hundred flowers blooming and a hundred families com-  
peting to have their voices heard." During the annual meetings of the  
local chapters in Hopei, Shensi, Szechuan, and elsewhere, many reports  
were read and discussed. He mentioned in particular that, during the  
12 years since the Liberation, the number of geological workers has been  
greatly increased; much concrete results have been achieved through

general mineral investigations, geological surveys on various scales, compilation of geological maps, and research in special problems, and it is definitely proven that rich mineral resources exist in our country for Socialist economic construction; the general technical level has been greatly raised and many former blank or weak spots in technology have been filled and strengthened; up-to-date techniques have been gradually introduced into geological exploration and research; and the analysis and study of the large amount of actual data have steadily improved our general knowledge of the theoretical aspects of geological science. We can be proud of these achievements.

Finally, speaking on behalf of all the members of the Geological Society of China, Professor Ho warmly supported the slogan of "establish stout heart and ambition, bury head and work hard, strive to improve and excel, build strength from within, move forward at full speed" proclaimed by Premier Chou En-lai according to Marxism, Leninism, and the writings of Chairman Mao to better carry out the policy of "a hundred flowers" and achieve even greater successes in our country's socialist construction.

Vice Minister Hsu Chieh (6079 2638) representing the Ministry of Geology applauded the many old-time geologists for their several decades of outstanding work, urged young geologists to follow their example of hard work and perseverance, and expressed the hope that old and young geologists would work together closely in attaining even greater successes in our country's socialist construction.

Old members like Sun Yün-chu (1327 7189 6999), Wang Chu-chün (3769



554 3123), Lo Shen-nan (2867 2773 1416), Chang Hsi-t'1 (1728 1598 7  
4398), and Chang Keng-tu (1728 2577 6757) also spoke. They told of their  
many decades of experience and reflections and unanomously expressed  
their confidence in Party guidance and determination to continue to do  
good work. Congratulatory messages from the China Palaeontology Society,  
Petroleum Research Institute, Peking University Geology and Geography  
Departments, Northwest University, and other organizations were read.

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BRIEF REPORT ON THE SHENSI PROVINCE GEOLOGICAL  
CONFERENCE HELD IN 1961

[Following is a translation of an unsigned article in Ti-chih  
Hsueh-pao (Acta Geologica Sinica) Vol. 42, No. 1, March 1962,  
Peiping, pages 103-104.]

The Shensi Province Geological Science Conference was held during December 28-30, 1961 at the Northwest University. A total of 85 reports were submitted. About 500 persons from eleven production, research, and academic units of the Province participated.

During the first day of the Conference, three papers on geotectonics by Chang Po-sheng (1728 0130 5116 ), Tai T'ien-fu (2071 1131 1381 ), and Lo Yao-hsing ( 5012 3613 2502 ) were read. Later, the Conference was split into three groups for delivering papers and discussions. The first dealt with stratigraphy, the second petrology, ore bodies, and geomorphology, and the third Quaternary, hydrology, and engineering geology.

There were two central problems in stratigraphy. One was Chang Po-sheng's theories on earth crust. The other was the stratigraphy and structural problems of the Liao-yang region, Fai Hsien, Shensi. The thesis of Chang Po-sheng was to split the present earth crust into two large land blocks, comprised of the Pacific and all areas outside of the Pacific. These two blocks are further divided into many large and small, various shaped, and uplifting or subsiding sub-blocks. The latter in turn are divided into deep fault, deep depression, fold, or [fault regions separated and yet welded together. Where the land blocks]

Meet or where more than two faulted regions have a "T" or "+" relationship, the intersecting or overlapping zones show more intense geological activity, smaller and more broken land blocks, more complicated geologic history, and greater concentration and diversity of minerals. As for the stratigraphy and structural aspects of the Kai-liao region, Yen Lien-on'uan (7051 1670 3123) presented much actual data to prove that the region has two sets of limestone. One lies in unconformity above the Proterozoic and should be classified as the Sinian. The other has base conglomerates and is not in conformity with the lower Carboniferous above it and should be classified as the Devonian. Hence, the region is the transition zone between the land trough and the platform that has been uplifted fairly quickly. However, the so-called Sinian limestone suggested by Chang Ern-tao (1728 1422 6670) still might be Devonian, whereas the underlying formations are of the lower Palaeozoic; hence the region should be an early Palaeozoic land trough. Lo Yao-hsing also determined that the region has two possibilities with regard to formation period and structural characteristics, although leaning to the latter view. Discussions were very heated, but there was no unanimous view. In the stratigraphy group, aside from the above two central themes, reports were also presented on the geological problems of the Ordos, western Szechuan, and A-la-shan regions.

There were also many good papers on geomorphology, the Quaternary, hydrology, and engineering geology. Some reports dealt with "slip slope" problems intimately related with production, results of engineering

geology studies on the Pao-chi Gorge, and conclusions regarding the hydrology-geology maps compiled for Shensi Province. New findings were made on yellow soil formations and their genesis. Wang Shan-sheng (3769 0810 3932) in examining the mineral composition and structural characteristics of the yellow soils of Shensi and Kansu, arrived at general conclusions on the genesis of North China yellow soils and discussed the relationship of these soils with engineering geology. Wang Yung-yen (3769 3057 8698) made some original observations of the Quaternary formations in the Kuan-chung region of Shensi and discussed his theories. He believes that, in classifying the Quaternary, it is not adequate just to use the traditional tools, such as the changes of structure and paleontological and lithological factors; there have been marked changes in the milk-fed ancient animals of the Quaternary; therefore, evolution is a good basis for classifying the individual series of the Quaternary. Conversely, the time period and frequency of structural changes do not necessarily coincide with geologic age and hence cannot be used as the main criteria. He pointed out that the erosion surface of yellow soil formations is not necessarily related to structural movement and might reflect climatic and topographical changes. When using old soil formations that have been eroded at an angle, it is necessary to be careful because different topography develops different formation layers. Also, methods in geomorphology can only be used as supplementary tools in separating or classifying the subordinate formations. Wang Yung-yen argues for the rock stratigraphy method. He feels that careful

Application of this method not only will be important in classifying the various "series" of formations but also in more detailed classification. He finally recommended that, for the Kuan-chung region, the Quaternary be divided into the San-men "t'ung" (series) (Q<sub>1</sub>), the Ta-fo-shu "t'ung" (Q<sub>2</sub>), the Ch'ien Hsien "t'ung" (Q<sub>3</sub>), and the Ch'ian-hsien "t'ung". During the discussions, the members present felt that the above views should be taken into consideration from now on and that further investigation is necessary on the matter.

Papers on petrology and ore bodies were the most numerous. Most of them dealt with conclusions on mineral exploration in Shensi Province during recent years and the new data gathered. With regard to coal geology, aside from those on the "Wei-pei black waist belt", most papers dealt with regions in the Province lacking adequate coal. As for metallic ore bodies, aside from reviewing the general work on copper and iron in Shensi Province, most of the time was spent on the genesis of one specific iron deposit. Ho Fo-ch'ih (0149 0130 1062) and others felt that the deposit is transformed sediments in metamorphic volcanic rocks; on the other hand, Hsing Shun-hsin (6717 7311 3227) believes that the mineral-bearing rocks are model sedimentary clastic rocks that underwent metamorphism. With regard to nonmetallic ore bodies, Hsu Shih-ch'eng (7202 0013 6134) summarized his map work on the genesis of Cambrian phosphate deposits in southern Shensi. Lo Yao-hsing in his report on the formation of magnesite deposits, after describing the geological characteristics and formation conditions of crystalline magnesite introduced the new

view on the assimilation of such deposits and, based upon this, discussed the direction of exploration in regions of Shensi. The petrology and ore bodies group also presented papers on theoretical problems of petrology and ore deposition. Some of these relate to long term evaluations of potential ore and gas regions of the northwest; such papers were of interest to people in production, research, and teaching.

Because of time and other factors, certain papers were not presented at the Conference. It was recommended that interested units organize small conferences subsequently to discuss and disseminate the findings in the last few years.

This Conference permitted wide interchange of information on the geological work during the last two years for the Province. The summary findings of the investigations and research should be very helpful in future work. This Conference/<sup>was different</sup> from the first one held for Shensi in early 1960 in several respects. First of all, topics were broader and contents covered more information. Secondly, there were many papers of better technical quality and more practical significance. For example, papers were presented on geotectonics, metamorphic rocks and yellow soil, genesis or deposition conditions of ore bodies, and hydrological and geological maps. These show that the technical level of geological work in Shensi Province has advanced. Also, major points were clearly emphasized in the Conference. For example, special problems related to industry and agriculture, such as coal geology, hydrology, fertilizer minerals, iron, and copper were stressed.

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TABLE OF CONTENTS OF CHUNG-KUO CH'U-MU SHOU-I  
( ANIMAL HUSBANDRY AND VETERINARY MEDICINE IN CHINA )  
PEIPING, NO 5, 3 MAY 1962

[ Following is a translation of the table of contents of  
the Chinese-language document, Chung-kuo Ch'u-mu Shou-I  
( Animal Husbandry and Veterinary Medicine in China ),  
Peiping, No 5, 3 May 1962. ]

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\*Comrade Chang Sao-chiung (4453 4801 6608 ), deputy director of the Institute of Agricultural Sciences spoke on the characteristics of preventive vaccine No. 19. Three points were made at this conference, one of them calling for the proper and discriminating use of vaccine based on the attenuated bacteria's biological characteristics and different physiological factors and epidemiologic conditions among dairy herds and sheep flocks.

Founding of the Hopei Provincial Society of Animal Husbandry and Veterinary Medicine

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